

BINGLEY URBAN DISTRICT COUNCIL.



REPORT OF THE
MEDICAL OFFICER OF HEALTH
AND
SANITARY INSPECTOR,

For the Year Ending
December 31st, 1913.

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BINGLEY URBAN DISTRICT COUNCIL.

Report of the Medical Officer of Health for the Year ending December 31st, 1913.

TO THE CHAIRMAN AND MEMBERS OF THE URBAN DISTRICT
COUNCIL OF BINGLEY.

GENTLEMEN,

The following Report is arranged in Sections, in accordance with instructions contained in a Memorandum issued by the Local Government Board in December, 1913.

A.—NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

1—Physical Features and General Character of the District.—
The Urban District of Bingley consists of a section, about $2\frac{1}{2}$ miles long, of the valley of the River Aire, running from North-west to South-east, and the drainage area of that section of the river. On the North-east side of the valley the land rises steeply to the table-land of Rombalds Moor, which has an elevation of 800 to 1,200 feet, the valley itself being between 200 and 300 feet above sea-level. On the South-west side the District consists chiefly of the drainage area of Harden Beck, a tributary of the Aire flowing from South-west to North-east, the water-shed of which varies in height up to about 1,000 feet. The geological stratum of the District is millstone grit, overlaid in places by the lower coal measures. The subsoil is chiefly loam, but much of the valley is occupied by beds of boulder clay and gravel, and on one of these the greater part of the town of Bingley is built. Besides the drainage areas mentioned, the District includes, on the East, part of the upper valley of Gill Beck, a stream which joins the Aire about three miles below Bingley. The length of the District is about 8 miles from North-east to South-west, and its breadth from North-west to South-east about three miles. The total area is stated to be 11,831 acres. The population at the census of 1911 was 18,759, and the estimated population for 1913 is 18,800.

2—Social Conditions and Occupations of the Inhabitants.—

The Urban portion of the District is almost entirely dependent on various branches of woollen manufacture, which is also the principal employment in the surrounding villages. Farming, chiefly grazing, and market gardening, are carried on in the rural portions of the District, and there are several large stone quarries. None of these occupations can be said to have any harmful effects on the health of the inhabitants except the last mentioned, in which the inhalation of dust arising from stone-dressing renders those engaged in it liable to pulmonary disease and to some extent raises the phthisis death-rate.

Pauperism.—The number of indoor paupers in the district in 1913 was 82, outdoor 19, and insane 46, the rate of pauperism, excluding the insane, being 10.7 per 1000, compared with a rate for the West Riding of about 13.0 per 1000.

As regards voluntary provision of medical relief there is a Cottage Hospital in the District with 21 beds, which received 254 patients during the year. There is no out-patient department of the hospital. Two District Nurses are employed by voluntary associations. One resides at Bingley and one at Wilsden. The total number of patients visited by them was 202.

B.—SANITARY CIRCUMSTANCES OF THE DISTRICT.

Water Supply.—The water supply of the District is drawn from springs, except in those parts which are supplied by Bradford Corporation. Reservoirs exist at Cullingworth, Harden Lane, and Kettlewell Close, holding respectively 1,000,000, 250,000, and 4,000,000 gallons. It was not found necessary to limit the supply of water during the year. The villages of Harden and Cottingley are supplied from private sources. In regard to Harden, I should like to remind the Council that the conditions as regards water supply are still practically the same as noted in my Annual Report for 1903. At Moor Edge, all the houses derive their sole water supply from a spring near Cragg Cottages, the water from which is conveyed in an open water course, liable to pollution for some 200 yards, and thence in a covered rubble water course opening at intervals into troughs from which water is drawn, the overflow passing on to the next trough. This cannot be regarded as a satisfactory method of distribution of drinking water. In the lower part of the village over 60 houses derive their water supply from the upper dam at Harden Mill, which is partly fed by a stream from Rycroft, and is liable to pollution from farm houses and manured fields.

The Rivers and Streams in the District are, in some outlying parts, still liable to pollution from untreated sewage, e.g., Rycroft and the Crack Lane district at Wilsden. The provision of sewers for these places has been repeatedly considered by the Council, but the natural difficulties in the way have not yet been overcome.

Drainage and Sewerage.—With the exception of Ryecroft, Harecrofts, and part of Wilsden, all the hamlets and villages in the District have now been connected with the main sewerage system conveying sewage to Dowley Gap for treatment. During the year Ireland Street and Ireland Terrace, Bingley, have been connected, and arrangements are made for the connection of Wilsden Hill. On account of the insufficiency of the sewer in Long Lane, Harden, referred to in my last report, the Council has made provision for a new sewer to be laid there at sufficient depth to drain the cellars of houses in that locality. The other work done during the year is given in detail in the Sanitary Inspector's Report.

Closet Accommodation.—The table on p. 25 shows the number of closets of each type in each part of the District. The figures show a marked improvement in this respect. Nearly all the midden closets which can be reached by the sewers at present existing have now been converted into w.c.'s. The number of conversions made during the year was 76.

Scavenging.—The table on p. 25 shows that seven moveable ashbins have been substituted for fixed receptacles, and 42 middens converted into dry-ash-places. The total number of fixed ashpits existing in connection with privies is 611. The remainder of the receptacles are either dry ash places, apart from privies, or tubs or bins. House refuse is removed by the Council's employees at intervals varying from a week to three months, as is necessary, according to situation and amount of use. In two outlying parts of the District refuse is removed by contract, in the remainder by the Council's workmen. This also applies to the cleansing of privies, ashpits, and cesspools.

Sanitary Inspection of District.

I have prepared the following table from information supplied to me by the Sanitary Inspector:—

Number of Inspections made by Sanitary Inspector.	Notices Out- standing at end of 1912.	Notices served.		Notices complied with.	Summonses.			Notices Out- standing at end of 1913.
		Informal.	Formal.		Served.	Withdr'wn on payment of costs.	Convic- tions.	
Dwelling-houses ...	683	44	67	112	12	12		41
Factories and Workshops	121	3	3	5				1
Cowsheds ...	273							
Slaughter-houses ...	469							
Offensive Trades ...	50							
Common Lodging Houses	4							
Smoke Observations ...	53	4	1	4			1	
Insanitary Manure Places	3	3		3				

Defects discovered were as follows—

Defective Closet Accomodation	..	73	Defective Pavement of Yards	..	..	7
Defective House Drainage ..	..	51	Insanitary Middens	..	..	65
Dampness of Dwellings	..	5	General unfitness of Dwellings for habitation	..	..	38

Premises and Occupations controlled by Byelaws or Regulations.—The following is a list of such premises in the Urban District :—

Slaughter-houses—15.

Offensive Trades—4 (tripe-boilers, 2; fell-monger, 1; gut-scrapers, 1).

Lodging-houses—1.

There are no underground sleeping-rooms not complying with the Housing and Town Planning Act, 1909.

Schools.—The number of Elementary Schools in the District is 14. During the year I have paid 21 visits to these. Most of my visits were called for by the prevalence of epidemic disease among school children. In February 34 children were excluded from school on account of purulent discharges which might possibly be of scarlatinal origin or a means of spreading scarlet fever. In the same month, 14 children attending Cullingworth National School were bacteriologically examined for diphtheria. One gave a positive result. In March, as diphtheria had occurred in Cottingley School, a bacteriological examination of the throats of 59 children was made, and one child who gave a positive result was excluded from school. In April and June several children were excluded from Cullingworth School on account of sores which might have been sequelæ of scarlet fever. A request was received from the Education Sub-Committee for a thorough examination of all school drains during the summer vacation. This was carried out by the Sanitary Inspector and a report presented to the Education Sub-Committee. A thorough cleansing of the schools was also supervised by the Sanitary Inspector, the caretakers being advised as to methods of cleansing and disinfection. Eleven visits were paid to schools by the Health Visitor. By my instruction, Mornington Road, Belgrave Road, Myrtle Park, Holy Trinity, Bingley National, and the Roman Catholic School were closed for a week in January on account of scarlet fever. Eldwick School was closed from July 22 to August 4 for the same reason. The Infant Departments of Harden School and the Roman Catholic School were closed for a fortnight each in November and December on account of measles.

FOOD.

(a) **Milk Supply.**—There are 127 dairy farms in the District with 223 cowsheds. Much of the milk produced is sent to Leeds and Bradford, and little, if any, is imported into the District. All cowsheds are regularly inspected by the Sanitary Inspector and his assistant. No reports were received as to non-compliance with the regulations of the Dairies, Cowsheds, and Milkshops Orders.

As stated in the Sanitary Inspector's report, one milk cow was found to be suffering from tuberculosis of the udder and one heifer from general tuberculosis. Both were destroyed.

(b) **Other Foods.**—Inspection of food offered for sale is one of the duties of the Sanitary Inspector, who also has supervision of the condition of premises in which food is prepared, stored, or exposed for sale. The number of bake-houses in the District is 29, of which 4 are underground. All are in good sanitary condition. All the 15 registered slaughter-houses were regularly inspected. No carcasses were found unfit for sale as food.

HOUSING.

The following table is prepared in accordance with Art. V of the Housing (Inspection of District) Regulations, 1910 (Sep. 2) :

Number of houses inspected during 1913 under and for the purposes of Sec. 17 of the Act of 1909 ...	117
Number of dwelling-houses which, on inspection, were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation ...	38
Number of representations made to the Local Authority with a view to the making of closing orders ...	38
Number of dwelling-houses in respect of which closing orders were made ...	32
Number of dwelling-houses which after the making of closing orders were put into a fit state for human habitation ...	nil.
Number of dwelling-houses closed by owners without closing orders being made ...	6
Number of houses in respect to which demolition orders were made ...	6

The defects found to exist were dampness, insufficient ventilation and lighting and general dilapidation.

For the first time in my Annual Report I am unable to say that there is a sufficiency of houses for the working classes. This is not on account of any marked increase in the population, but is, I think, due chiefly to the fact that the Council's action in closing insanitary dwellings has coincided in time with the demolition of houses which cannot be deemed insanitary for the purpose of widening Main Street. This latter may, however, itself be classed as a sanitary measure. Wide streets are always more healthy, as well as safer, than narrow. But in the meantime the demand for

houses by outgoing tenants is greater than the supply, the total number of houses put out of occupation during the year being 50, whilst the number of houses built has been only 26. The average number of houses built per annum during the past ten years has been about 30, and that number may be taken as what is required to meet the increase of population and the gradual rise in the standard of comfort now demanded by working people. We have thus instead of an increase of 30 houses an actual decrease of 24, without, so far as is known, any corresponding decrease in the demand. Moreover, of the houses put out of occupation about 30 were rented at less than 4/- a week, some as low as 2/- a week, whilst not one of the new houses is obtainable for less than 6/-. The difficulty of finding new dwellings thus comes to be felt most severely by the class that is least able to bear it—the very poor. I am informed that it is impossible to build houses in accordance with the bye-laws to let at less than 6/- a week, if a fair profit is to be allowed to the builder or owner. The problem has, of course, presented itself in other and larger towns and various solutions have been tried. On the comparatively small scale seen in Bingley it seems to me that the difficulty might be met by something in the nature of municipal dwellings, to be let to single old people or elderly couples or widows at a rent below market rate and under the supervision of the Council.

The attention of landlords and tenants may be drawn to Sec. 14 and 15 of the Housing and Town Planning Act, 1909, by which it is enacted that when a house is let for £10 a year (i.e. 6/- a week) or less, there is now an implied contract that the house is at the commencement of and during the continuance of the holding in all respects reasonably fit for human habitation, and if this undertaking is not complied with, the Sanitary Authority may give the landlord 21 days' notice to execute such work as the Council considers necessary.

C.—SANITARY ADMINISTRATION OF THE DISTRICT.

1—The Officials of the Sanitary Department are the Medical Officer of Health, the Chief Sanitary Inspector, who is also Inspector of Buildings and Inspector of Canal Boats, an Assistant Sanitary Inspector for Wilsden and Cullingworth Wards, who is also Assistant Water Manager for these Wards, and a Lady Health Visitor, who is also a qualified Sanitary Inspector, and acts as an Assistant Sanitary Inspector as well as Visitor under the direction of the Medical Officer of Health in connection with the Notification of Births Act and Tuberculosis Regulations. The report of the Chief Sanitary Inspector is appended to this report and shows the work done by him and his assistants.

2.—Hospital Administration.—Cases of Scarlet Fever, Diphtheria, and Enteric Fever, from the Central, South, West, North, East and Cullingworth Wards are received for treatment at the Keighley and Bingley Joint Hospital, at Morton Banks. Cases from Wilsden Ward are received at Thornton Joint Hospital. During the year 210 cases of Scarlet Fever were sent to hospital, out of 243 notified cases, 41 cases of Diphtheria out of 58, and 2 cases of Enteric Fever out of 3 notified; making a total of 253 cases out of 304, or 83 per cent.

3.—The following Local Acts and general Adoptive Acts are in force in the District:—

LOCAL ACTS.

Bingley Improvement Act, 1847.
Bingley Extension and Improvement Act, 1867.
Bingley Water and Improvement Act, 1881.
Bingley Urban District Council Act, 1901.

ADOPTED ACTS.

Infectious Diseases (Prevention) Act, 1890.
Public Health Acts (Amendment) Act, 1890, Parts II., III., and V.
Public Health Acts (Amendment) Act, 1907, Part II., secs. 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32 and 33.
Part III., secs. 34, 35, 36, 37, 44, 45, 46, 47, 49, 50, and 51.
Part IV., secs. 52, 53, 54, 55, 56, 57, 59, 61, 62, 63, 64, 65, and 66.
Parts V. and VI. Part VII., secs. 81 and 86. Part VIII., and Part X., secs. 94 and 95.
Notification of Births Act, 1907.

ACTION TAKEN UNDER THESE ACTS.

Under Infectious Diseases Acts, see section D., p. 10.
Under Notification of Births Act, see section G., p. 16.

4.—Chemical and Bacteriological Work during the Year.—Baeteriological investigation in connection with Infectious Disease is undertaken by the West Riding County Council at the Public Health Laboratory, at Wakefield. The following results have been reported to me. The figures do not, however, represent the whole of the work done for this District at the laboratory, as negative results are usually reported only to the medical attendant in charge of the case.

Diphtheria,	positive results	...	...	...	...	64
„	negative	„	...	...	...	305
Tuberculosis,	positive	„	...	...	...	7
„	negative	„	...	...	...	13
Ringworm,	positive	„	...	...	...	1
„	negative	„	...	...	...	2
Enteric Fever,	positive	„	...	...	...	1
„	negative	„	...	...	...	6

D.—PREVALENCE AND CONTROL OF INFECTIOUS DISEASES.

Diphtheria.—The number of cases notified was 58, giving an attack rate of 3.0 per 1000, which is slightly in excess of the two previous years (2.6 for 1911 and 2.3 for 1912). Five persons died from the disease. When a case of diphtheria occurs, all the children in the family are excluded from school until bacteriological examination of their throats gives repeated negative results. Antitoxin is supplied by the Council for use in necessitous cases.

Scarlet Fever.—The first seven months of the year showed a gradually increasing prevalence of this disease, but, except at Cullingworth, the number of cases has now subsided to about the average rate. In all 243 cases were notified during the year, giving an attack rate of 12.9 per 1000, against a rate of 10.6 in 1912 and 2.5 in 1911. There were 4 deaths.

With all our means of isolation and disinfection it must be confessed that we have not yet succeeded in getting control of epidemics of Scarlet Fever. Whilst this is partly due to our ignorance of the medium by which infection is conveyed from one person to another, it is also in part due to a want of the sentiment of responsibility to the public which exists in many persons. To some, so long as the patient is apparently not dangerously ill, the possibility of danger to others seems to be a matter of indifference. Personal infection is an undoubted cause of the long-continued prevalence of scarlet fever, and until its control becomes a personal matter with every householder the prospect of speedily checking an epidemic are scanty. The following tables show the distribution, as regards age and locality, of Scarlet Fever, Diphtheria, and other diseases in the District during the year:—

Table showing Number of Cases of Scarlet Fever in different parts of the District in each month of 1913.

Month.	Bingley.	Cottingley.	Harden	Crossflatts and Micklethwaite	Cullingworth.	Wilsden.	Total.	Age 0—5 years.	Age 5—15 years.	Age 15 years and upwards.
January ...	37	1		6	2	1	47	7	32	8
February ...	35		1	10	1		47	13	27	7
March ...	18			8		2	28	3	18	7
April ...	13	1		6	9	10	39	8	22	9
May ...	13			2		1	16	5	9	2
June ...	12			3	2	5	22	8	12	2
July ...	9			5		3	17	5	11	1
August ...	4			3	1		8	1	5	2
September ...										
October ...				2		1	3		2	1
November ...					6	6	12	2	9	1
December ...						4	4	1	3	
Totals ...	141	2	1	45	21	33	243	53	150	40

Similar Table for Diphtheria.

Month.	Bingley	Cottingley.	Harden.	Crossflatts and Micklethwaite.	Cullingworth.	Wilsden.	Total.	Age 0—5 years.	Age 5—15 years.	Age 15 years and upwards.
January ...					1		1	1		
February ...	2	1			1		4	2	2	
March ...	6						6	2	3	1
April ...				1			1		1	
May ...	2			3	2		7	1	3	3
June ...	5			1	2		8	1	5	2
July ...	5			2		2	9	1	6	2
August ...	3	1	1				5		4	1
September ...	3						3	1	2	
October ...	2			3			5	1	3	1
November ...	6			1			7	3	3	1
December ...	2						2		1	1
Totals ...	36	2	1	11	6	2	58	13	33	12

**Table showing Non-notifiable Diseases reported from
Schools in the district in each month of 1913.**

Month.	Measles.	Whooping Cough.	Chicken pox.	Mumps.	Ringworm	Totals.
January ...	4	4	5		4	17
February ...						0
March ...						0
April ...						0
May ...						0
June ...						0
July ...			4			4
August ...						0
September	23	7	4		4	38
October ...	30					30
November	6	1	18	7		32
December	5			16		21
Total ...	68	12	31	23	8	142

E.—PREVALENCE OF AND CONTROL OVER TUBERCULOSIS.

The number of cases of Pulmonary Tuberculosis notified during the year was 34; non-Pulmonary, 33.

In the following Tables these cases are arranged according to age and occupation. The number of deaths from Pulmonary Tuberculosis was 18, from other forms of tuberculosis 4. The death rate from the former class of cases is also shown in tabular form for the past 7 years, distributed among males and females :—

Table showing number of cases of Tuberculosis notified
during the Year 1913.

Occupation.	PULMONARY.		NON-PULMONARY.	
	MALE.	FEMALE	MALE.	FEMALE
Domestic		6		5
Mill Workers	6	9	2	5
Shop Assistants	2	2	1	3
Other Occupations	5		1	
No Occupation (Adults) ..	3	1		1
School Children and Infants ...			9	6
Totals ...	16	18	13	20

Age Distribution.	0 — 1	1 — 2	2 — 5	5 — 15	15 — 25	25 — 45	45 — 65	65 and over	Totals.
Pulmonary Male Patients }					4	7	4		15
Pulmonary Female Patients }				2	3	12	2		19
Non-Pulmonary Male Patients }		1	1	8		3	1		14
Non-Pulmonary Female Patients }				5	5	7	2		19
Totals ...		1	1	15	12	29	9		67

**Phthisis Table, showing death rates amongst Males and Females
in Bingley.**

Year.	Number of Male Deaths.	Rate per 1,000	Number of Female Deaths.	Rate per 1,000	Total Number of Deaths	Phthisis Death Rate.	Population.	
							Males.	Females
1907	10	1·17	7	·69	17	·91	8,531	10,105
1908	12	1·40	7	·69	19	1·01	8,539	10,119
1909	9	1·05	11	1·08	20	1·07	8,545	10,142
1910	7	·80	6	·59	13	·69	8,552	10,160
1911	9	1·05	10	·98	19	1·01	8,562	10,181
1912	11	1·28	7	·68	18	·95	8,568	10,203
1913	12	1·39	6	·58	18	·95	8,575	10,225

I have little to say about the control of Tuberculosis. An elaborate and costly machinery for treatment and to some extent for prevention has been prepared, but the administration thereof has been retained by the County Council in its own hands. So far as I can learn the following is the record of work done in this District :—

10 Patients (5 insured, 5 uninsured) were treated in Sanatoria.

6 Patients (5 insured, 1 uninsured) received nourishment at home.

13 patients were treated at the Tuberculosis Dispensary.

The total number of persons on the Tuberculosis register is 109.

Whilst, of course, one welcomes all well-directed attempts to cure Tuberculosis, one rather fears that attention may be drawn away from the best means of prevention: good housing, cleanliness, sufficient air space, ventilation, good feeding (especially in childhood), and the discouragement of family life for tuberculous persons; the last not, we nowadays believe, because children inherit tuberculosis from their parents, but because it is difficult for a tuberculous father or mother, despite precautions, in the long course of raising a family, to avoid infecting one or more of the offspring. It is probably during childhood that the seeds of disease are most often sown. Unfortunately the time when children most need roomy and healthy surroundings is often the period when parents have not the means to rent a suitable house or provide a sufficiency of food. Financial assistance under well-thought-out conditions to prevent abuse, if granted in such cases and at such times would, I believe, often result in an economical gain to the State.

F.—Investigation of other Diseases.

The following Chart gives a comparative view of the principal causes of death during 1913.

Number of Deaths.						0	5	10	15	20	25	30
Old Age							
Cancer (Malignant Disease)							
Heart Disease							
Pneumonia							
Bronchitis							
Apoplexy							
Tuberculosis—Pulmonary							
Tuberculosis—Other Forms							
Premature Birth and Congenital Debility							
Kidney Disease							
Violence and Suicide							
Diarrhœa							
Diphtheria							
Scarlet Fever...							
Influenza							
Measles							
Cirrhosis of Liver							
Enteric Fever							

The most noteworthy item in the Table is the high place taken by Malignant disease. More deaths from Malignant disease have been registered in the district in 1913 than in any year of which I have record. Whilst it must be remembered that our population is too small to enable us to base on it a definite opinion as to the increase or otherwise of cancer, it is a fact that certain forms of the disease are now more frequently recorded than formerly. This may be due to a better understanding of the nature of Malignant disease.

G.—MEANS FOR PREVENTING MORTALITY IN CHILDBIRTH AND IN INFANCY.

The number of infants born in the District during the year was 372. These with the addition of 2 births transferred to the District give a birth rate of 19.9, the highest since 1908. The infantile death rate was 85 per 1000 births. The Health Visitor working under the Notification of Births Act has visited 364 of the homes in which births have occurred and given simple instructions, when necessary, with regard to feeding and management of the mother and infant. She reports that 78 per cent. of the babies were breast fed, 19 per cent. fed by hand, and in 3 per cent. the mothers' milk was supplemented by cows' milk. A point worthy of notice is that 5 per cent. of the breast-fed children died during their first year of life, of those artificially fed 18 per cent. died. Of the mothers 92 per cent. did not go to work for at least three months following the date of the child's birth.

I may add from the Health Visitor's report that she has, in addition to her routine work, given addresses to several women's associations in the town, and has conducted a class for home nursing at the Technical School. This was attended by 28 students. Miss Taylor also points out in her report that most of the conditions which I have referred to as preventing the spread of tuberculosis are also effective in lowering infantile mortality. Scrupulous cleanliness is essential in every one concerned with infant nursing. She also mentions the part played by poverty in raising the infantile death-rate, both directly through malnutrition of the mother and indirectly by its being too often associated with overcrowding, uncleanness, and, whether as cause or effect, with alcoholism.

The following Table compares the Birth-rate, Death-rate, and Infantile Mortality in the different Wards :—

Table showing Birth-rate, Death-rate, and Infantile Mortality in each Ward during 1913.

Ward.	Birth-rate.	Death-rate.	Infantile Death-rate per 1000 Births.
Central	17·5	14·6	92
South	22·3	19·8	48
West	12·6	11·8	85
North	10·8	17·1	125
East	15·8	12·6	68
Cullingworth ...	8·6	21·3	Nil.
Wilsden	12·4	16·9	174
Whole District ...	19·9	15·5	85

Table showing Birth-rate, Death-rate, Zymotic Death-rate, and Infantile Mortality in England and Wales, compared with rates for Bingley Urban District.

	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infantile Mortality per 1000 Births.
England and Wales ...	23·9	13·7	1·20	109
Great Towns (95) ...	25·1	14·3	1·5	117
Smaller Towns (146)	23·9	12·8	1·2	112
England and Wales ... less 241 Towns	22·3	13·1	0·8	96
Bingley Urban District	19·9	15·5	1·01	85

The number of still-births recorded in the District was 12.

The Vital Statistics of the District are appended to this Report. The Birth-rate is slightly higher than in recent years. The Infantile Death-rate is about the average, whilst the general Death-rate is distinctly higher. Analysis of the figures on Table III. shows that the greatest increase is in the deaths of persons over 65 years of age. In the other age-classes the increase is very slight.

Rainfall.—The following Table gives in inches the monthly rainfall at Gilstead Filter-beds and at Hewenden Reservoir. The figures are kindly supplied by the Bradford Waterworks Engineer.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Hewenden	4.56	1.58	6.05	4.01	3.34	1.63	.89	1.25	1.86	2.61	4.05	2.40
Gilstead	2.80	.98	3.39	3.27	2.55	1.26	.68	1.64	1.44	2.16	2.60	1.96

Totals—Gilstead 24.73 inches (average for 28 years, 27.83).

Hewenden 32.78 inches (average for 49 years, 39.98).

In concluding this Report I wish to express my thanks to the Members of the Sanitary Committee and of the District Council generally for their careful consideration of reports and suggestions from the Sanitary Department, also to the officials of the Council for much assistance and information in their several Departments.

I am,

Gentlemen,

Yours faithfully,

H. ANGUS,

Medical Officer of Health.

March 3, 1914.

Table 1.—Vital Statistics of Whole District during 1913 and previous years.

Year.	Population estimated to Middle of each year.	Births		Total Deaths Registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.		
		Un-corrected Number.	Nett.	Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.	At all Ages.	
								Number	Rate.	
1	2	3	4	5	7	8	9	10	11	12
1908	18,665	373		20'0	12'4	0	21	39	104	253
1909	18,696	322		17'2	13'4	1	12	35	109	261
1910	18,727	341		18'2	11'7	2	22	31	91	240
1911	18,753	361	363	19'3	11'5	3	33	34	93	245
1912	18,790	308	310	16'5	11'5	5	47	25	81	258
1913	18,800	372	374	19'9	14'3	9	32	32	85	292

Total population at all ages	...	18,759	At Census of 1911.
Area of District in acres (exclusive of area covered by water)	...	4,748	
Average number of persons per house	...	3'95	



Table II.—Cases of Infectious Disease notified during the year 1913.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED								TOTAL CASES NOTIFIED IN EACH LOCALITY. (e.g. Parish or Ward) of the District.							TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages	At Ages—Years.							1	2	3	4	5	6	7	
		Under 1 year.	1 and under 5.	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	Central.	South.	West.	North	East.	Culling- worth.	Wilsden	
Small-pox																
Cholera																
Diphtheria including Membranous Croup	58		13	33	7	5			11	9	1	17	12	6	2	41
Erysipelas	27		2	1	3	11	7	3	4	3	4	2	7	4	3	
Scarlet Fever... ..	243	2	51	150	29	10	1		27	38	12	58	54	20	34	210
Typhus Fever																
Enteric Fever	3				1	2					1			1	1	2
Relapsing Fever																
Continued Fever																
Puerperal Fever	1					1			1							
Cerebro-spinal Meningitis																
Poliomyelitis																
Pulmonary Tuberculosis	34			2	7	19	6		7	10	4	5	5	1	2	10 Sanatoria
Other forms of Tuberculosis	33		2	13	6	9	3		3	7	6	2	10	2	3	
Totals	399	2	68	199	53	57	17	3	53	67	28	84	88	34	45	253 Hospital 10 Sanatoria

Isolation Hospitals { Keighley and Bingley Joint Hospital.
Thornton Joint Hospital.

Sanatoria:—Morton Banks; Balby (Women); Cardigan (Men).

Table III.—Causes of, and Ages at Death, during the Year 1913.

CAUSES OF DEATH. I	Nett Deaths at the subjoined ages of 'Residents' whether occurring within or without the District.									Total Deaths whether of 'Residents' or 'Non-Residents' in Institutions in the District II
	All Ages 2	Under 1 Year 3	1 and under 2 4	2 and under 5 5	5 and under 15 6	15 and under 25 7	25 and under 45 8	45 and under 65 9	65 and upwards 10	
All Causes { Certified Uncertified	278 14	31 1	6	5	14	9	34 1	63 4	116 8	
Enteric Fever	1						1			1
Measles	3	1	1	1						
Scarlet Fever	4		1		3					2
Diphtheria and Croup	5			2	3					5
Influenza	3							1	2	
Phthisis (Pulmonary Tuberculosis)	18				1	2	8	6	1	1
Tuberculous Meningitis	1				1					
Other Tuberculous Diseases	3				2	1				
Cancer, malignant disease	26						2	9	15	
Organic Heart Disease	26				1	1		10	14	
Bronchitis	20	1					1	3	15	
Pneumonia (all forms)	26	5	4		1		5	4	7	2
Other diseases of respiratory organs	5						1		4	
Diarrhoea and Enteritis	6	5			1					
Cirrhosis of Liver	2							2		
Nephritis and Bright's Disease	15						1	8	6	
Other Accidents and Diseases of Pregnancy and Parturition	4					1	3			
Congenital Debility and Malformation, including Premature Birth	17	17								
Violent Deaths, excluding Suicide	8				1		3	2	2	1
Suicide	3						1	1	1	
Other Defined Diseases	94	3		2		4	9	20	56	2
Diseases ill-defined or unknown... ..	2							1	1	
Totals	292	32	6	5	14	9	35	67	124	14

Table IV.—Infant Mortality.

1913.—Nett Deaths from stated Causes at various Ages under One Year of Age.

CAUSES OF DEATH.				Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 weeks.	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Months	Total Deaths under 1 Year.
All Causes	{	Certified	8	4		1	13	7	3	6	2	31	
		Uncertified	1				1					1	
Measles										1		1	
Convulsions				1				1				1	2
Bronchitis									1				1
Pneumonia (all forms)					1			1	1	2	1	5	
Diarrhœa									1				1
Enteritis					1			1		2		3	
Gastritis											1		1
Syphilis									1				1
Congenital Malformations				1				1		1		2	
Premature Birth				5				5				5	
Atrophy, Debility and Marasmus				2	2		1	5	3		2	10	
Totals				9	4		1	14	7	3	6	2	32

Nett Births in the year	{ Legitimate ... 367.	Nett Deaths in the year of	{ Legitimate Infants ... 29
	{ Illegitimate ... 7.		{ Illegitimate Infants ... 3

BINGLEY URBAN DISTRICT COUNCIL.

Report of the Building and Sanitary Inspector for the Year ending 31st December, 1913.

TO THE URBAN DISTRICT COUNCIL OF BINGLEY.

MR. CHAIRMAN AND GENTLEMEN,

I beg to submit for your consideration my Fifteenth Annual Report of the Sanitary Work executed under your authority during the year ending 31st December, 1913.

Building Plans, New Buildings, Sewers and Drainage Constructed.—64 Building Plans have been approved, and 2 disapproved, 31 dwelling-houses have been erected, 942 yards of main sewers and 2,356 yards of drains have been constructed, and 202 drains connected up to main sewers. 1898 Visits to buildings, sewers, and drainage in course of construction have been made. Central Ward—Additions and alterations to the Co-operative Society's Buildings, Wellington Street, Bingley; 2 shops in Dubb Lane, 3 temporary wood buildings, 188 yards of drainage and 25 connections to main sewers. South Ward—16 Through-houses, additions to Cottingley Mill, additions to the Working Men's Club, Cottingley; additions to the Tannery, Bradford Road; 1 temporary wood building, 218 yards of main sewers, 832 yards of drainage, and 80 connections to main sewers. West Ward—Alterations to the Victoria Hall; Motor Garage, Keighley Road; 370 yards of main sewers, 188 yards of drainage, and 25 connections to main sewers. North Ward—1 Villa, Langley Avenue; Picture Palace, Main Street; additions to a house, Main Street; 40 yards of main sewers, 319 yards of drainage, and 15 connections to main sewers. East Ward—10 Through houses in Binns Street, 4 villas in Villa Road, 2 temporary wood buildings, 314 yards of main sewers, 656 yards of drainage, and 41 connections to main sewers. Cullingworth Ward—Alterations and additions to the Co-operative Stores, slaughter-house in Station Road, 1 temporary wood building, 88 yards of drainage, and 8 connections to main sewers. Wilsden Ward—Stable and out buildings to the Co-operative Stores, 85 yards of drainage, and 8 connections to main sewers. It may be interesting to know that during the fifteen years ending 31st December, 1913, there have been 553 dwelling-houses erected in the Bingley Urban District area, and during the same period 74 dwelling-houses have been closed, namely, 5 at bottom of the town for road widening, 6 at Gilstead,

6 at Myrtle Place, 4 at Harden Beck, 11 at Crossflats, 29 at top of the town for road widening, 4 at Cottingley, and 9 in Garden Row, Bingley. The following table gives the class of houses that have been erected in each ward.

Years	Central Ward.	South Ward.		West Ward	North Ward.		East Ward.			Cullingworth Ward		Wilsden Ward.		Totals
	Through Houses.	Villas.	Through Houses.	Through Houses.	Villas.	Through Houses.	Villas.	Through Houses.	Back-to-back Houses.	Villas.	Through Houses.	Villas.	Through Houses.	
1899			28		2	2		18	16		1		3	70
1900	8							49					5	62
1901	10					1		9		1			4	25
1902	12	1	14		1			3			6			37
1903	8		21		2			22			4		2	59
1904	3	4	4		2	6		22		1	1	1	2	46
1905	1		6	1		10	3	3		1			5	30
1906	1		1			9		10						21
1907				1	2	2	3	10					4	22
1908						2		10					3	15
1909			15			2		9						26
1910			13	1		25		5						44
1911		1	12		3	10	4	2						32
1912	2	1	14		1	11	3	1						33
1913			16		1		4	10						31
Totals	45	7	144	3	14	80	17	183	16	3	12	1	28	553

In addition to the above there are 30 dwelling-houses in course of construction, namely, 8 through houses in Belgrave Road, Bingley; 12 in Myrtle Park, 3 at Crossflats and Micklethwaite, 3 at Eldwick, and 4 at Wilsden.

Abatement of Nuisances.—32 Complaints have been received, 683 houses and premises have been inspected, 54 informal notices served, 54 complied with, 39 nuisances reported, 70 formal notices served, and 70 complied with. 135 nuisances abated, of these 65 were abated without being reported. There were 42 formal notices outstanding at the end of 1913.

Nuisances dealt with.—20 House drains have been tested at the request of the occupiers, and 16 were found to be defective; 86 house drains have been repaired, trapped, and disconnected; 21 sink waste pipes trapped and disconnected; 10 cellar drains have been relaid, trapped and disconnected; and 18 miscellaneous nuisances have been abated.

The following Table gives the alterations and additions of w.c. and ashes place accommodation :—

WARDS.	Reconstruction of W.C. and Ashpit accommodation						
	Provided			Dispensed with			
	Water Closets	Dry Ash Places	Dry Ash Bins	Midden Closets	Pail Closets	Covered Middens	Open Middens
Central ...	26	10	2	21		11	2
South ...	9	3	1	8		4	1
West ...	7	3	2	2		2	
North ...	16	5	2	15		5	2
East ..	14	5		5		5	
Cullingworth Ward ...	13	6		10			6
Wilsden Ward	20	10		15		2	7
Totals ...	105	42	7	76		29	18

There have been 40 water closets, 1 slop water closet, 2 dry ashes places, 29 dry ashes bins, and 18 baths provided in connection with new buildings.

Nuisances to be dealt with.—Of the 12 notices outstanding, 7 are from the Central Ward, 9 South, 8 West, 1 East, 5 Cullingworth, and 12 from the Wilsden Ward, representing nuisances arising from insanitary privy and ashpit accommodation and defective house drainage.

Table showing number and result of Inspection of Houses, etc., during 1913.

CLASS OF BUILDINGS, &c., INSPECTED.	No. of Inspection.	Housing (Inspection of District) Regulations, dated September 2nd, 1910, Defects or Nuisances connected with Dwelling-houses.											Defects or Nuisances connected with Factories or Workshops.					NOTICES.				Out- standing Notices.		Summonses.			
		Closet Accommodation	House Drainage.	Dampness.	Paving of Yards.	Insanitary Middens.	Houses found totally unfit for habitation.	Houses repre- sented to Autho- rity as above.	Houses closed voluntarily.	H'uses for which Closing Orders were made.	Houses closed after Closing Orders Issued.	H'uses for which demolition order were made.	Insufficient Sanitary Accommodation	No Sanitary Accommodation	Separate Appro- aches to ditto.	Means of escape in case of fire.	Dogs kept underneath workroom.	Screening off Sanitary Accommodation	Informal		Formal.		Informal.	Formal	Issued.	Convictions.	Withdrawn on payment of costs.
																			Served.	Complied with.	Served.	Complied with.					
Dwelling-houses	683	73	51	5	7	65	38	38	6	32	25	6							44	44	67	68		41	12		12
Factories and Workshops	121												2	2	2	1	I	5	3	3	3	2		1			
Cow-sheds	273																										
Slaughter-houses	469																										
Offensive Trades... ..	50																										
Common Lodging-houses	4																										
Factories—Smoke Observations	53																										
Insanitary Manure Places	3																		4	4	I				I	I	
																			3	3							

42 Formal Notices were outstanding at the end of 1912.

Summary of Housing Work during 1913.

Table showing action under Section 17 of the Housing, Town Planning, &c., Act, 1909.

Houses with minor defects (Public Health Acts).	122	Houses inspected under the Act and Regulations in 1913.			Action under P.H. Acts in cases of houses with minor defects not remediable under Section 15, owing to the tenancy having commenced before Dec. 3rd, 1909.			Actions under Section 17.							Appeals	Houses with defects not disposed of at end of 1913.													
			117	Houses found with defects.	117	Houses in regard to which notices were served to remedy defects.	117	Houses made fit after notice.	123	38	Houses found to be totally unfit for habitation.	38	Houses represented to Local Authority as being totally unfit for human habitation	38	6	Houses closed voluntarily.	32	Houses in respect of which closing orders were made.	25	Houses closed as unfit for human habitation after closing orders were made.	9	Houses demolished voluntarily.	6	Houses for which demolition orders were made.	1	116	Houses with minor defects (Public Health Acts).	7	Houses totally unfit for human habitation (Section 17).

Infectious Diseases and Disinfection.—During the past year 304 cases have been notified; 595 visits have been made to houses in which infectious diseases have occurred, and 305 houses have been disinfected; 277 cases were reported to the Education Department. There were 243 cases of Scarlet Fever, of these 210 were removed to the Infectious Diseases Hospital, and 33 were nursed at home. There were 58 cases of Diphtheria, 41 cases were removed to the hospital, 17 were nursed at home; 3 cases of Typhoid, 2 cases were removed to the hospital and 1 nursed at home. 22 Dwelling-houses have been disinfected where deaths occurred from Tuberculosis. The drainage and sanitary arrangements of all the premises where infectious diseases have been notified have been inspected, and the result of the inspections, together with particulars of the inmates, have been supplied to the Medical Officer of Health. When Public Library books have been found at any of the houses where infectious diseases have occurred, they have been disinfected, and returned to the librarian. Our method of disinfection is either to spray all the rooms with a strong solution of formaldehyde, or fumigate with formalin tablets, or both; each house is treated according to circumstances. Owing to the increased number of infectious disease cases, the District Sub-committee for the Schools requested me to examine the school drains during the summer holidays, and also instruct the caretakers as to the necessary cleaning to be done and as to the advisability of keeping the windows open. Thirteen schools were inspected, and for this purpose 34 visits were paid to them. The drainage of the schools were examined, and found to be in good order, with the exception of one small defect, which was remedied. All the schools were thoroughly cleansed.

Smoke Observations.—53 Observations have been made; see the following table:—

DESCRIPTION OF WORKS.	No. of observations taken for a period of 60 minutes	No. of minutes dense and moderate smoke emitted per hour in each case.													
		Dense Smoke.							Moderate Smoke.						
Albert Mill ...	1	7½													
Argyll Mill ..	1	3½													
Bingley Brewery ...	6	nil	nil	nil	1	nil	nil		5	nil	1	3	nil		
Bowling Green Mill	1	3½							4						
Britannia Mill ...	7	nil	nil	nil	5	nil	½	2	nil	2	10	nil	6½	6	
Cottingley Mill ...	6	16	49	31	19½	15	14½		17	11	20	17	16½		
Dubb Mill ...	2	nil	½						nil	3½					
Gasworks ...	2	5½	25½						nil	nil					
Paper Mill ...	7	12½	5	3½	2½	½	21½	12	3½	2½	6½	2½	23	10	
Park Road Mill ...	1	17½							6½						
Stanley Mill...	1	6							9						
Victoria Mills ..	9	11½	12	17½	3	3	6	5½	8½	9	34	8½	34	7½	6½
Ditto Two Chimneys	9	11½	12	17½	3	3	6	5½	8½	9	34	8½	34	7½	6½

Smoke.—Several of the stokers have been warned, 4 informal notices served, and 1 formal; in one case proceedings were taken and one conviction obtained.

Slaughter-houses.—There are 15 registered slaughter-houses; 469 visits to slaughter-houses and food-shops have been made, and the bye-laws relating to cleansing, removal of blood, garbage, etc., as far as practicable have been strictly enforced. My attention has been called to several cases where disease in animals has been suspected when slaughtering, but it has not been found necessary to take any proceedings in regard to carcasses unfit for human food.

Offensive Trades.—There are four persons engaged in offensive trades: 2 tripe boilers, 1 fell-monger, and 1 gut-scrapers; 50 inspections have been made, strict attention being paid to cleanliness.

Cowsheds, Dairies and Milkshops.—There are 127 cow-keepers entered in the report books, and 18 purveyors of milk; 273 inspections have been made of cowsheds and purveyors' premises; one milk cow was found to be suffering from Tuberculosis of the udder, one heifer from Tuberculosis with emaciation, and one heifer from Anthrax. The carcasses of all three were destroyed.

Common Lodging-Houses.—There is one common lodging-house; 4 inspections have been made to this house.

Canal Boats.—In accordance with the provisions of Section 3 of the Canal Boats Act, 1884, I have made 26 visits on that part of the Leeds and Liverpool Canal which is within the limits of your District, viz.:—a length of about $2\frac{1}{2}$ miles. During the year 33 boats have been inspected; 66 men were on board, and in one case a woman, who was the wife of a captain. There were no children. All the boats were registered, and numbered to correspond with the certificates. There was no overcrowding, and the conditions respecting cleanliness, ventilation, painting, and repairs were very good.

Factory and Workshops Acts.—There are 135 workshops registered. Of these 36 are in the Wilsden Ward, 18 in the Cullingworth Ward, and 81 in the five other Wards. There have been 121 visits made to workshops. Due attention has been paid throughout the year to cleanliness, ventilation, sanitary conveniences and drainage. Six notices of occupation of workshops have been received from H.M. Inspector of Factories during 1913. The following notices have been received from H.M. Inspector of Factories, and dealt with during the year:—

- 2 Notices for insufficient sanitary accommodation.
 2 „ „ no sanitary accommodation.
 2 „ „ separate approaches to sanitary accommodation.
 1 „ „ means of escape in case of fire.
 1 „ „ dogs kept underneath workroom.
 5 „ „ screening sanitary accommodation.

Visits to outlying parts of the District.—Forty-nine visits to Cottingley, 97 to Crossflatts and Micklethwaite, 10 to Cullingworth, 49 to Eldwick, 2 to Faweather, 38 to Harden, 2 to Thwaites, and 5 to Wilsden have been made.

Nightsoil, Dry Ashes and Rubbish Removal.—There have been 3,496 loads removed at Bingley, 371 at Cottingley, 227 at Harden, 320 at Crossflatts and Micklethwaite, 159 at Eldwick, 885 at Cullingworth, 1,277 at Wilsden, making a total of 6,735 loads.

The following Table shows the types of closet accommodation, and receptacles for refuse in the different parts of the district :—

DIVISIONS.	Water Closets.	Slop Water Closets.	Pail Closets.	Midden Closets.	Open Middens.	Covered Middens.	Dry Ashes Bins.	Dry Ashes Tubs.	Dry Ashes Places.
Bingley	2004	731	69	139	27	70	127	136	882
Cottingley	67	16	8	105	25	37	10		17
Harden	49	6	7	146	58	30			4
Crossflatts	232	31	2	18	4	6	2	10	73
Eldwick	58	3	25	80	11	23		4	24
Micklethwaite	126	3	10	43	17	9	1	9	9
Cullingworth	126	30	45	68	38	22	2	14	77
Wilsden	207	57	100	274	127	88		66	100
Gilstead & Primrose	27	5		30	9	10	1		12
Totals ..	2896	882	266	903	316	295	143	239	1198

Collection of Refuse.—In Harden and Wilsden this work is done by contract, the other seven divisions are done by the Council's own employees. The dry ashes bins, excreta pails, ashpits and dry ashes places are emptied and cleared weekly, fortnightly and monthly, and in a few cases every 2 or 3 months.

I remain,

Gentlemen,

Your obedient servant,

THOMAS POTTER.

